ABSTRACT

A method of reducing wear in a cutting head of a tunnel boring machine, by means of the addition at the cutting head of a foamed aqueous liquid composition, which comprises a foaming agent and a lubricant, the lubricant being selected from the group consisting of high molecular weight polyethylene oxides and bentonite. Preferred foaming agents are anionic and nonionic surfactants. Wear rates of cutting elements of TBMs boring in hard rock are considerably reduced. A wear-reducing foamable concentrate is also described.